

**REMARKS**

Claims 1 through 15 were presented for examination and were rejected.

The applicants wish to thank Examiner Lee for his meticulous and thorough proofreading of the disclosure and drawings.

The drawings have been amended, and replacement drawing submitted, and the applicants respectfully submit that the drawings, as amended, overcome the rejections.

Claims 1, 12, 13, 14, and 15 have been amended to more clearly distinguish the present invention from the prior art. Claims 2, 6, 7, 8, 9, 10, and 11 have been canceled, and the remaining claims remain unchanged. The applicants respectfully request reconsideration in light of the amendments and the following comments.

**37 CFR 1.84(p)(5) Objection of Figures 2-4**

Figures 2, 3 and 4 were objected to because they included reference characters not mentioned in the description. The figures have been amended to bring them into conformance with the disclosure, and, therefore, the applicants respectfully submit that the objection is overcome.

**37 CFR 1.84(p)(5) Objection of Figures 2-4**

Figures 2, 3 and 4 were objected to because they do not include reference characters mentioned in the description. In particular the Office contends:

1. that node 110-*i* is not shown in the drawings. The applicants respectfully disagree. The largest box in Figure 2 is labeled "110-*i*." For this reason, the applicants respectfully submit that the objection is traversed.
2. that the element STS-1, STS-48, STS-*N* and STS-*Ns* are not labeled. The applicants respectfully traverse the objection. An STS-1 is a logical construct that has no physical manifestation. The optical fibers that carry the signals that are organized in the STS construct are depicted in the drawings, but the optical fibers are not referred by reference signals in the disclosure. For this reason, the applicants respectfully submit that the objection is traversed.

**37 CFR 1.83(a) Objection of Figures 1 and 2**

Figures 1 and 2 were objected to because the drawings do not show every feature of the invention. In particular, the Office action states that:

- (1) the first automatic protection switching channel,

(2) the second automatic protection switching channel,  
(3) the  $K_1$  and  $K_2$  line overhead bytes,  
recited in the claims are not shown in the drawings.

The applicants respectfully traverse the objection.

SONET/SDH Rings 101, 102, and 103 are physical structures and are depicted in Figure 1, but the first and second switching channels and the  $K_1$  and  $K_2$  line overhead bytes are logical constructs that have no physical manifestation. Showing a channel or an byte in this case is like showing a thought. For this reason, the applicants respectfully submit that the rejection is traversed.

#### **Objection to the Specification**

The specification is objected to because of the inconsistent use of OC-1 and STS-1 in the drawings and the specification. The applicants have amended the drawings, and respectfully submit that the rejection is now overcome.

The specification only uses STS-1 and STS-N and Figures have been amended to make them consistent with the specification. For this reason, the applicants respectfully submit that the rejection is overcome.

#### **35 U.S.C. 102 Rejection of Claims 1-15**

Claims 1 through 15 were rejected under 35 U.S.C. 102(e) as being anticipated by C. Chi, U.S. Patent 6,654,341 B1 (hereinafter "Chi"). Claims 1, 12, 13, 14, and 15 have been amended to more clearly distinguish the present invention from the prior art. Claims 2, 6, 7, 8, 9, 10, and 11 have been canceled, and the remaining claims remain unchanged.

Claim 1, as currently amended, recites:

**1. A telecommunications network comprising:**

a first SONET/SDH ring that comprises a first plurality of nodes, wherein said first SONET/SDH ring defines a first address space and wherein each of said first plurality of nodes is identified by a unique address in said first address space;

a second SONET/SDH ring that comprises a second plurality of nodes, wherein second SONET/SDH ring defines a second address space and wherein each of said second plurality of nodes is identified by a unique address in said second address space; and

*an optical fiber that carries a first **working** STS-N that comprises:*

*(1) a second **working** STS-1 that is associated with said first SONET/SDN ring, and*

*(2) a third **working** STS-1 that is associated with said second SONET/SDN ring;*

wherein there are at least two nodes that have an address in the address space of said first SONET/SDH ring and an address in the address space of said second SONET/SDH ring.

*(emphasis supplied)*

Nowhere does Chi teach or suggest, alone or in combination with the other references, what claim 1, as currently amended, recites – namely a single optical fiber that carries both a working STS-1 that is associated with a first ring and a working STS-1 that is associated with a second ring. In fact, Chi teaches away from the multiplexing of working STS-1's of different rings into a single STS-N that is carried on a single optical fiber. This is shown in Figure 6 of Chi in which the working paths for the three rings, W4, W5, and W6 are kept segregated and on different optical fibers. For this reason, the applicants respectfully submit that the rejection of claim 1 is overcome.

Because claims 3 and 4 depend on claim 1, the applicants respectfully submit that the rejection of them is also overcome.

Claim 5 recites:

5. A telecommunications network comprising:  
a first SONET/SDH ring; and  
a second SONET/SDH ring;  
*an optical fiber that carries:*  
(1) *a first **working** STS-1 that is associated with said first SONET/SDH ring, and*  
(2) *a second **working** STS-1 that is associated with said second SONET/SDH ring.*

*(emphasis supplied)*

Nowhere does Chi teach or suggest, alone or in combination with the other references, what claim 5 recites – namely a single optical fiber that carries both a working STS-1 that is associated with a first ring and a working STS-1 that is associated with a second ring. For this reason, the applicants respectfully submit that the rejection of claim 5 is traversed.

Claim 12, as currently amended, recites:

12. A method of operating a time-division multiplexed telecommunications system, said method comprising:  
receiving a first optical carrier signal that comprises a first source address and a first destination address in a first address space;

receiving a second optical carrier signal that comprises a first source address and a first destination address in a second address space;

multiplexing said first optical carrier signal and said second optical carrier signal into a **SONET/SDN working** frame; and

transmitting said **SONET/SDN working** frame;

wherein said first optical carrier signal in said frame comprises a second source address and a second destination address in said first address space; and

wherein said second optical carrier signal in said frame comprises a second source address and a second destination address in said second address space.

*(emphasis supplied)*

Nowhere does Chi teach or suggest, alone or in combination with the other references, what claim 12, as currently amended, recites – namely the multiplexing of working frames from different SONET/SDH rings into a single SONET/SDH frame. For this reason, the applicants respectfully submit that the rejection of claim 12 is overcome.

Because claim 13 is dependent on claim 12, the applicants respectfully submit that the rejection of it is also overcome.

Claim 14, as currently amended, recites:

**14. (Currently Amended)** A method of operating a time-division multiplexed telecommunications system, said method comprising:

receiving a **SONET/SDN working** frame that comprises (1) a first optical carrier signal that comprises a first source address and a first destination address in a first address space, and (2) a second optical carrier signal that comprises a first source address and a first destination address in a second address space;

demultiplexing said first optical carrier signal and said second optical carrier signal from said **SONET/SDN working** frame;

transmitting said first optical carrier signal, wherein said first optical carrier signal as transmitted comprises a second source address and a second destination address in said first address space; and

transmitting said second optical carrier signal, wherein said second optical carrier signal as transmitted comprises a second source address and a second destination address in said second address space.

*(emphasis supplied)*

Nowhere does Chi teach or suggest, alone or in combination with the other references, what claim 14, as currently amended, recites – namely the multiplexing of

working frames from different SONET/SDH rings into a single SONET/SDH frame. For this reason, the applicants respectfully submit that the rejection of claim 14 is overcome.

Because claim 14 is dependent on claim 15, the applicants respectfully submit that the rejection of it is also overcome.

**Request for Reconsideration Pursuant to 37 C.F.R. 1.111**

Having responded to each and every ground for objection and rejection in the Office action mailed February 8, 2005, applicants request reconsideration of the instant application pursuant to 37 CFR 1.111 and request that the Examiner allow all of the pending claims and pass the application to issue.

Should there remain unresolved issues the applicants respectfully request that Examiner telephone the applicants' attorney at 732-578-0103 x11 so that those issues can be resolved as quickly as possible.

Respectfully,  
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